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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,201	10/06/2005	Wei Huang	7035812001-3221000	5242
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Sandra Potcat Thompson Buchalter Nemer, A Professional Law Corporation 18400 Von Karman Suite 800 Irvine, CA 92612				
EXAMINER				
YOON, TAE H				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/518,201

Applicant(s)

HUANG ET AL.

Examiner

Tae H. Yoon

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-22, 24-49, 51-70 and 72-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-22, 24-49, 51-70 and 72-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Abstract is objected since it must be on a separate page, but the page containing the amended abstract contains other paragraph above said abstract.

Renumbering of claims 72-76 to 71-75 is noted.

Proper terminal disclaimers are acknowledged.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 27, 41, 57, 74 and 75 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27 is dependent on cancelled claim 15, and thus it is indefinite.

The recited "the alcohol-based solvent" in claim 41 lacks antecedent basis in claim 39.

Again, the recited "less than about" in claims 57, 74 and 75 is indefinite. It has to be either "about" or "less than" as similar to the amended claim 11, for example. See *Amgen, Ins. V. Chugal Pharmaceutical Co., Ltd.*, 18 USPQ 2d 1016 (Fed. Cir. 1991).

The recited polydispersity for the recited composition (which is a solution) in claims 57, 74 and 75 is incorrect and indefinite since said polydispersity (Mw/Mn) is related to polymers, not to a solution (Also, see instant page 13).

Applicant states that the composition of said claims does not comprise a solvent system and surfactant, but such statement has no probative value since claim 57 clearly

recites "a planarization composition, **comprising:** a structural constituent; at least one surfactant; and a solvent system, ---".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-14, 16, 17, 26-29, 32-40, 43-49, 51-55, 57-62, 64-70 and 72-75 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Drage (US 5,858,547).

Rejection is maintained for reason record with following response.

Contrary to applicant's assertion, solutions of examples 1 and 3 (two alcohols and fluoro surfactant) and examples 5 and 6 (ketone and fluoro surfactant in alcohol) meet the instant invention. *Said solutions inherently lower the recited forces or are*

compatible with novolac polymer since said solvents form solutions (incompatible solvent(s) would not form a solution) and since the same components are used. The prior art does need to recite any inherent property for the same given system, solution. Applicant's assertion of unexpected result has no probative value since Drage teach the same solution and since anticipation cannot be overcome by any unexpected result. Applicant asserts that ethyl lactate is not desirable in the present invention, but such statement has no probative value since the instant claim 7 recites **ethyl lactate** as one of solvents.

Both systems in the instant example 10, Accuflo 2025 with PGMEA and ethyl lactate and Accuflo 2027 with PGMEA and 2-propanol, fall within scope of the claimed invention contrary to applicant's assertion of superior result since the instant claim 7 recites **ethyl lactate** as one of solvents and since the scope of claim is broader than such showing if said example 10 has any probative value (the examiner does not think so). Also, comparison must be based on the composition of the closest prior art, not on applicant's own choice. Most of the instant claims even do not recite any particular polymer.

Furthermore, applicant has stated and admitted that the composition in claim 57 does not comprise a solvent system and surfactant, and has offered a declaration. Thus, the composition in claim 57 is directed to a structural constituent (it could be any polymer) having a polydispersity of less than (about) 2.5. The examiner welcomes such declaration.

Based on applicant's statement and admission, the composition of claims 1 and 36 would not comprise said solvent system and surfactant either since only difference in said claim 57 and claims 1 and 36 is a recitation of a polydispersity in said claim 57. Said polydispersity has nothing to do with said solvent system and surfactant which are absent.

Claims 1-14, 16-21, 24-49, 51-55, 57-62, 64-70 and 72-75 are rejected under 35 U.S.C. 103(a) as obvious over Drage (US 5,858,547).

Rejection is maintained for reason of record with above response.

Claims 1-5, 7-15, 16, 17, 26-29, 32-40, 42-49, 51-55, 57-61, 63-70 and 71-74 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rahman et al (US 5,928,836).

Rejection is maintained for reason of record with above under Drage and following response.

The solvent system of ethyl lactate and n-butyl acetate in tables 8-13 would meet the instant solvent system absent further limitation contrary to applicant's assertion.

Furthermore, for example, the solvent system of the instant claim 1 encompasses one solvent which provides solubility of a matrix resin.

Claims 1-14, 16-22, 24-49, 51-55, 57-70 and 72-75 are rejected under 35 U.S.C. 103(a) as obvious over Drage (US 5,858,547) in view of Rahman et al (US 5,928,836).

Rejection is maintained for reason of record with above response.

Claims 114, 16-21, 24-49, 51-62, 64-70 and 72-75 are rejected under 35 U.S.C. 103(a) as obvious over Drage (US 5,858,547) in view of McCutcheon et al (US 2007/0105384 A1) or Patil et al (US 2003/0207209 A1).

Rejection is maintained for reason of record with response above under Drage.

Applicant admits that McCutcheon et al and Patil et al teach UV curing, and failed to rebut the use of McCutcheon et al and Patil et al.

Claims 1-3, 8-10, 26, 28, 29, 32, 33, 36-38, 43, 44, 47 and 53-55 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Montgomery (US 6,258,514).

Rejection is maintained for reason of record with following response.

For example, the solvent system of the instant claim 1 encompasses one solvent which provides solubility of a matrix resin. The prior art does need to recite any inherent property for the same given system, solution. *Solutions of Montgomery inherently lower the recited forces or are compatible with novolac polymer since said solvents form solutions (incompatible solvent(s) would not form a solution)* and since the same components are used.

Applicant's assertion of unexpected result has no probative value since Montgomery teaches the same solvents and since anticipation cannot be overcome by any unexpected result. Applicant asserts that ethyl lactate is not desirable in the present invention, but such statement has no probative value since the instant claim 7 recites **ethyl lactate** as one of solvents.

Both systems in the instant example 10, Accuflo 2025 with PGMEA and ethyl lactate and Accuflo 2027 with PGMEA and 2-propanol, fall within scope of the claimed invention contrary to applicant's assertion of superior result since the instant claim 7 recites **ethyl lactate** as one of solvents and since the scope of claim is broader than such showing if said example 10 has any probative value (the examiner does not think so). Also, comparison must be based on the composition of the closest prior art, not on applicant's own choice. Most of the instant claims even do not recite any particular polymer.

Furthermore, applicant has stated and admitted that the composition in claim 57 does not comprise a solvent system and surfactant, and has offered a declaration. Thus, the composition in claim 57 is directed to a structural constituent (it could be any polymer) having a polydispersity of less than (about) 2.5. The examiner welcomes such declaration.

Based on applicant's statement and admission, the composition of claims 1 and 36 would not comprise said solvent system and surfactant either since only difference in said claim 57 and claims 1 and 36 is a recitation of a polydispersity in said claim 57.

Said polydispersity has nothing to do with said solvent system and surfactant which are absent.

Claims 1-3, 8-14, 26, 28, 29, 32, 33, 36-38, 43-49 and 53-55 are rejected, under 35 U.S.C. 103(a) as obvious over Montgomery (US 6,258,514).

Rejection is maintained for reason of record with above response.

Claims 1-5, 7-14, 16, 17, 26-29, 32-40, 42-49 and 51-55 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rogler (US 5,276,126).

Rejection is maintained for reason of record with following response.

For example, the solvent system of the instant claim 1 encompasses one solvent which provides solubility of a matrix resin. The prior art does need to recite any inherent property for the same given system, solution. *Solutions of Rogler inherently lower the recited forces or are compatible with novolac polymer since said solvents form solutions (incompatible solvent(s) would not form a solution).*

Applicant's assertion of unexpected result has no probative value since Rogler teaches the same solvents and since anticipation cannot be overcome by any unexpected result. Applicant asserts that ethyl lactate is not desirable in the present invention, but such statement has no probative value since the instant claim 7 recites **ethyl lactate** as one of solvents.

Both systems in the instant example 10, Accuflo 2025 with PGMEA and ethyl lactate and Accuflo 2027 with PGMEA and 2-propanol, fall with scope of the claimed invention contrary to applicant's assertion of superior result since the instant claim 7 recites **ethyl lactate** as one of solvents and since the scope of claim is broader than such showing if said example 10 has any probative value (the examiner does not think so). Also, comparison must be based on the composition of the closest prior art, not on applicant's own choice. Most of the instant claims even do not recite any particular polymer.

Furthermore, applicant has stated and admitted that the composition in claim 57 does not comprise a solvent system and surfactant, and has offered a declaration. Thus, the composition in claim 57 is directed to a structural constituent (it could be any polymer) having a polydispersity of less than (about) 2.5. The examiner welcomes such declaration.

Based on applicant's statement and admission, the composition of claims 1 and 36 would not comprise said solvent system and surfactant either since only difference in said claim 57 and claims 1 and 36 is a recitation of a polydispersity in said claim 57. Said polydispersity has nothing to do with said solvent system and surfactant which are absent.

Claims 1, 2, 8-14, 26, 28, 29, 32, 33, 36, 37, 43-49 and 53-56 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McCutcheon et al (US 2007/0105384 A1).

Rejection is maintained for reason of record with response under Montgomery.

Claims 1-5, 7-14, 16, 17, 26-29, 32-40, 42-49, 51-55, 57-61, 63-70 and 72-75 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hacker et al (US 6,723,780 or 6,506,831 or 6,506,441).

Rejection is maintained for reason of record with response under Drage.

Claims 1-14, 16, 17, 26-29, 32-49, 51-55, 57-70 and 72-75 are rejected under 35 U.S.C. 103(a) as obvious over Hacker et al (US 6,723,780 or 6,506,831 or 6,506,441).

Rejection is maintained for reason of record with above response.

Claims 1-14, 16-22, 24-9, 51-55, 57-70 and 72-75 are rejected under 35 U.S.C. 103(a) as obvious over Hacker et al (US 6,723,780 or 6,506,831 or 6,506,441) in view of Drage (US 5,858,547).

Rejection is maintained for reason of record with response under Drage.

Claims 1-3, 8-14, 26, 28, 29, 32, 33, 36, 37, 38, 43-49 and 53-56 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Prybyla (US 6,048,799).

Rejection is maintained for reason of record with response under Montgomery.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tae H Yoon /Tae H Yoon/
Primary Examiner
Art Unit 1796

THY/October 31, 2008